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PTO/SB/21 (08-00)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

| | | | |
|---|-----------------------------|-------------------------------|-----------|
| Application Number | 08/788,560 | | |
| | Filing Date | January 24, 1997 | |
| | First Named Inventor | Shunpei YAMAZAKI et al. | |
| | Group Art Unit | 2811 | |
| | Examiner Name | O. Nadav | |
| Total Number of Pages in This Submission | | Attorney Docket Number | 0756-1626 |

ENCLOSURES (check all that apply)

| | | |
|--|---|---|
| <input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Declaration and Power of Attorney <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ | <input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosures 1. 2. 3. 4. 5. 6. |
| Remarks <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees required or credit any overpayments to Deposit Account No. 50-2280 for the above identified docket number. | | |

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | |
|--------------------------------|--|
| Firm or Individual name | Eric J. Robinson, Reg. No. 38,285 Robinson Intellectual Property Law Office, P.C. PMB 955 21010 Southbank Street Potomac Falls, VA 20165 |
| Signature | |
| Date | May 27, 2003 |

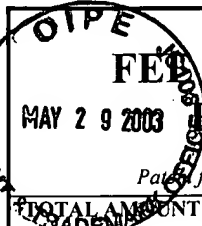
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage and class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

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|-----------------------------|------------------|-------------|--------------|
| Type or printed name | Adele M. Stamper | | |
| Signature | | Date | May 27, 2003 |

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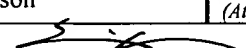
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|--|--|--------------------------|--|
|  <h1 style="margin: 0;">FEE TRANSMITTAL</h1> <h2 style="margin: 0;">FOR FY 2001</h2> <p style="font-size: small; margin: 5px 0;">Patent fees are subject to annual revision.</p> | | Complete if Known | |
| Application Number | | 08/788,560 | |
| Filing Date | | January 24, 1997 | |
| First Named Inventor | | Shunpei YAMAZAKI et al. | |
| Examiner Name | | O. Nadav | |
| Group Art Unit | | 2811 | |
| Attorney Docket No. | | 0756-1626 | |
| TOTAL AMOUNT OF PAYMENT | | (\$ 410.00) | |

| METHOD OF PAYMENT | FEE CALCULATION (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-----------------------|-----------------------|---|-----------------------|-----------------|----------|-----|-----|-----|--------------------|-------------------------------------|-----|-----|-----|-----|-------------------|--|-----|-----|-----|-----|------------------|---------------------------|-----|-----|-------|-----|--------------------|--|-----|-----|------|-----|------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|---|-----|-----|-----|-----|------------------------|--|-----|-----|-----|-----|-----------------------------------|---|--------|-----|-----|-----|---------------------------------------|--|-----|-----|-------|-----|--|---|-----|-----|-------|-----|--|--|--|-----|-----|-----|-----|------------------|--|-----|-----|-----|-----|--|--|-----|-----|-----|-----|--------------------------|--|-----|-------|-----|-------|---|--|-----|-----|-----|----|----------------------------------|--|-----|-------|-----|-----|------------------------------------|--|-----|-------|-----|-----|--------------------------------|--|-----|-----|-----|-----|------------------|--|-----|-----|-----|-----|-----------------|--|-----|-----|-----|-----|-------------------------------|--|-----|----|-----|----|------------------------------------|--|-----|-----|-----|-----|---|--|-----|----|-----|----|---|--|-----|-----|-----|-----|---|--|-----|-----|-----|-----|---|--|-----|-----|-----|-----|---|--|-----|-----|-----|-----|---|--|---------------------------|--|--|--|--|--|------------------------------------|--|--|--|--------------------------|--|
| <p>1. <input type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:</p> <p>Deposit Account Number: 50-2280</p> <p>Deposit Account Name: Robinson Intellectual Property Law Office</p> <p><input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 and credit overpayments</p> <p><input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27</p> <p>2. <input checked="" type="checkbox"/> Payment Enclosed:</p> <p><input checked="" type="checkbox"/> Check <input type="checkbox"/> Credit Card <input type="checkbox"/> Money Order <input type="checkbox"/> Other</p> | <p>3. ADDITIONAL FEES</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For filing a request for <i>ex parte</i> reexamination</td><td></td></tr> <tr><td>112</td><td>920*</td><td>112</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>113</td><td>1,840*</td><td>113</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>116</td><td>410</td><td>200</td><td>200</td><td>Extension for reply within second month</td><td>410.00</td></tr> <tr><td>117</td><td>920</td><td>460</td><td>460</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>118</td><td>1,440</td><td>720</td><td>720</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>128</td><td>1,960</td><td>228</td><td>980</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>119</td><td>320</td><td>219</td><td>160</td><td>Notice of Appeal</td><td></td></tr> <tr><td>120</td><td>320</td><td>220</td><td>160</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>121</td><td>280</td><td>221</td><td>140</td><td>Request for oral hearing</td><td></td></tr> <tr><td>138</td><td>1,510</td><td>138</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>141</td><td>1,280</td><td>241</td><td>640</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>142</td><td>1,280</td><td>242</td><td>640</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>143</td><td>460</td><td>243</td><td>230</td><td>Design issue fee</td><td></td></tr> <tr><td>144</td><td>620</td><td>244</td><td>310</td><td>Plant issue fee</td><td></td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Processing fee under 37 CR 1.17(q)</td><td></td></tr> <tr><td>126</td><td>180</td><td>126</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment per property (time number of properties)</td><td></td></tr> <tr><td>146</td><td>740</td><td>246</td><td>370</td><td>Filing a submission after final rejection (37 CFR § 1.129(a))</td><td></td></tr> <tr><td>149</td><td>740</td><td>249</td><td>370</td><td>For each additional invention to be examined (37 CFR § 1.29(b))</td><td></td></tr> <tr><td>179</td><td>740</td><td>279</td><td>370</td><td>Request for Continued Examination (RCE)</td><td></td></tr> <tr><td>169</td><td>900</td><td>169</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> <tr><td colspan="6">Other fee (specify) _____</td></tr> <tr> <td colspan="4">* Reduced by Basic Filing Fee Paid</td> <td colspan="2">SUBTOTAL (3) (\$ 410.00)</td> </tr> </tbody> </table> | Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description | Fee Paid | 105 | 130 | 205 | 65 | Surcharge - late filing fee or oath | | 127 | 50 | 227 | 25 | Surcharge - late provisional filing fee or cover sheet | | 139 | 130 | 139 | 130 | Non-English specification | | 147 | 2,520 | 147 | 2,520 | For filing a request for <i>ex parte</i> reexamination | | 112 | 920* | 112 | 920* | Requesting publication of SIR prior to Examiner action | | 113 | 1,840* | 113 | 1,840* | Requesting publication of SIR after Examiner action | | 115 | 110 | 215 | 55 | Extension for reply within first month | | 116 | 410 | 200 | 200 | Extension for reply within second month | 410.00 | 117 | 920 | 460 | 460 | Extension for reply within third month | | 118 | 1,440 | 720 | 720 | Extension for reply within fourth month | | 128 | 1,960 | 228 | 980 | Extension for reply within fifth month | | 119 | 320 | 219 | 160 | Notice of Appeal | | 120 | 320 | 220 | 160 | Filing a brief in support of an appeal | | 121 | 280 | 221 | 140 | Request for oral hearing | | 138 | 1,510 | 138 | 1,510 | Petition to institute a public use proceeding | | 140 | 110 | 240 | 55 | Petition to revive - unavoidable | | 141 | 1,280 | 241 | 640 | Petition to revive - unintentional | | 142 | 1,280 | 242 | 640 | Utility issue fee (or reissue) | | 143 | 460 | 243 | 230 | Design issue fee | | 144 | 620 | 244 | 310 | Plant issue fee | | 122 | 130 | 122 | 130 | Petitions to the Commissioner | | 123 | 50 | 123 | 50 | Processing fee under 37 CR 1.17(q) | | 126 | 180 | 126 | 180 | Submission of Information Disclosure Stmt | | 581 | 40 | 581 | 40 | Recording each patent assignment per property (time number of properties) | | 146 | 740 | 246 | 370 | Filing a submission after final rejection (37 CFR § 1.129(a)) | | 149 | 740 | 249 | 370 | For each additional invention to be examined (37 CFR § 1.29(b)) | | 179 | 740 | 279 | 370 | Request for Continued Examination (RCE) | | 169 | 900 | 169 | 900 | Request for expedited examination of a design application | | Other fee (specify) _____ | | | | | | * Reduced by Basic Filing Fee Paid | | | | SUBTOTAL (3) (\$ 410.00) | |
| Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description | Fee Paid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 105 | 130 | 205 | 65 | Surcharge - late filing fee or oath | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 127 | 50 | 227 | 25 | Surcharge - late provisional filing fee or cover sheet | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 139 | 130 | 139 | 130 | Non-English specification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 147 | 2,520 | 147 | 2,520 | For filing a request for <i>ex parte</i> reexamination | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 112 | 920* | 112 | 920* | Requesting publication of SIR prior to Examiner action | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 113 | 1,840* | 113 | 1,840* | Requesting publication of SIR after Examiner action | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 115 | 110 | 215 | 55 | Extension for reply within first month | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 116 | 410 | 200 | 200 | Extension for reply within second month | 410.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 117 | 920 | 460 | 460 | Extension for reply within third month | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 118 | 1,440 | 720 | 720 | Extension for reply within fourth month | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 128 | 1,960 | 228 | 980 | Extension for reply within fifth month | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 119 | 320 | 219 | 160 | Notice of Appeal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 120 | 320 | 220 | 160 | Filing a brief in support of an appeal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 121 | 280 | 221 | 140 | Request for oral hearing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 138 | 1,510 | 138 | 1,510 | Petition to institute a public use proceeding | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 140 | 110 | 240 | 55 | Petition to revive - unavoidable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 141 | 1,280 | 241 | 640 | Petition to revive - unintentional | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 142 | 1,280 | 242 | 640 | Utility issue fee (or reissue) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 143 | 460 | 243 | 230 | Design issue fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 144 | 620 | 244 | 310 | Plant issue fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 122 | 130 | 122 | 130 | Petitions to the Commissioner | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 123 | 50 | 123 | 50 | Processing fee under 37 CR 1.17(q) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 126 | 180 | 126 | 180 | Submission of Information Disclosure Stmt | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 581 | 40 | 581 | 40 | Recording each patent assignment per property (time number of properties) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 146 | 740 | 246 | 370 | Filing a submission after final rejection (37 CFR § 1.129(a)) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 149 | 740 | 249 | 370 | For each additional invention to be examined (37 CFR § 1.29(b)) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 179 | 740 | 279 | 370 | Request for Continued Examination (RCE) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 169 | 900 | 169 | 900 | Request for expedited examination of a design application | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Other fee (specify) _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * Reduced by Basic Filing Fee Paid | | | | SUBTOTAL (3) (\$ 410.00) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>1. BASIC FILING FEE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>101</td><td>740</td><td>201</td><td>370</td><td>Utility filing fee</td><td></td></tr> <tr><td>106</td><td>330</td><td>206</td><td>165</td><td>Design filing fee</td><td></td></tr> <tr><td>107</td><td>510</td><td>207</td><td>255</td><td>Plant filing fee</td><td></td></tr> <tr><td>108</td><td>740</td><td>208</td><td>370</td><td>Reissue filing fee</td><td></td></tr> <tr><td>114</td><td>160</td><td>214</td><td>80</td><td>Provisional filing fee</td><td></td></tr> </tbody> </table> <p>SUBTOTAL (1) (\$)</p> <p>2. EXTRA CLAIM FEES</p> <p>Total Claims <input type="text"/> -20** = <input type="text"/> X <input type="text"/> = <input type="text"/></p> <p>Independent Claims <input type="text"/> -3** = <input type="text"/> X <input type="text"/> = <input type="text"/></p> <p>Multiple Dependent <input type="text"/> = <input type="text"/></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>103</td><td>18</td><td>203</td><td>9</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>102</td><td>84</td><td>202</td><td>42</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>104</td><td>280</td><td>204</td><td>140</td><td>Multiple dependent claim, if not paid</td><td></td></tr> <tr><td>109</td><td>84</td><td>209</td><td>42</td><td>** Reissue independent claims over original patent</td><td></td></tr> <tr><td>110</td><td>18</td><td>210</td><td>9</td><td>** Reissue claims in excess of 20 and over original patent</td><td></td></tr> </tbody> </table> <p>SUBTOTAL (2) (\$)</p> <p><small>**or number previously paid, if greater; For Reissues, see above</small></p> | Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description | Fee Paid | 101 | 740 | 201 | 370 | Utility filing fee | | 106 | 330 | 206 | 165 | Design filing fee | | 107 | 510 | 207 | 255 | Plant filing fee | | 108 | 740 | 208 | 370 | Reissue filing fee | | 114 | 160 | 214 | 80 | Provisional filing fee | | Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description | Fee Paid | 103 | 18 | 203 | 9 | Claims in excess of 20 | | 102 | 84 | 202 | 42 | Independent claims in excess of 3 | | 104 | 280 | 204 | 140 | Multiple dependent claim, if not paid | | 109 | 84 | 209 | 42 | ** Reissue independent claims over original patent | | 110 | 18 | 210 | 9 | ** Reissue claims in excess of 20 and over original patent | | <p style="text-align: center;">CERTIFICATE OF MAILING</p> <p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on May 27, 2003.</p> <p style="text-align: right;">Name: Adele M. Stampen</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description | Fee Paid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 101 | 740 | 201 | 370 | Utility filing fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 106 | 330 | 206 | 165 | Design filing fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 107 | 510 | 207 | 255 | Plant filing fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 108 | 740 | 208 | 370 | Reissue filing fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 114 | 160 | 214 | 80 | Provisional filing fee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description | Fee Paid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 103 | 18 | 203 | 9 | Claims in excess of 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 102 | 84 | 202 | 42 | Independent claims in excess of 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 104 | 280 | 204 | 140 | Multiple dependent claim, if not paid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 109 | 84 | 209 | 42 | ** Reissue independent claims over original patent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 110 | 18 | 210 | 9 | ** Reissue claims in excess of 20 and over original patent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| SUBMITTED BY | | Complete (if applicable) | |
|-------------------|---|-----------------------------------|----------------|
| Name (Print/Type) | Eric J. Robinson | Registration No. (Attorney/Agent) | 38,285 |
| Signature |  | Telephone | (571) 434-6789 |
| | | Date | May 27, 2003 |



#55
Response
of Robinson
6.3.03

Attorney Docket No. 0756-1626

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Shunpei YAMAZAKI et al.

Serial No. 08/788,560

Filed: January 24, 1997

For: SEMICONDUCTOR DEVICE AND
METHOD OF FORMING THE SAME

) Group Art Unit: 2811

) Examiner: Ori Nadav

) CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on May 27, 2003.

) Adelle M. Stamp

RESPONSE

Honorable Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The non-final Official Action dated December 27, 2002 has been received and its contents carefully noted. Filed concurrently herewith is a *Request for a Two Month Extension of Time* which extends the shortened statutory period for response to May 27, 2003. Accordingly, the Applicants respectfully submit that this response is being timely filed.

Claims 78-157 are pending in the present application, of which claims 78, 84, 90, 96, 102, 104, 110, 118, 126, 134, 140, 146 and 152 are independent. For the reasons set forth in detail below, these claims are believed to be in condition for allowance.

The Applicants note with appreciation the consideration of the Information Disclosure Statements filed on January 24, 1997, December 8, 1997, December 9, 1998, December 31, 1998, and June 16, 2000.

Paragraph 2 of the Official Action rejects claims 78-101, 110-115, 117-127, 129-138 and 146-157 as obvious based on the combination of U.S. Patent No. 4,755,865 to Wilson et al., U.S. Patent No. 4,772,927 to Saito et al. and U.S. Patent No. 4,841,348 to Shizukuishi et al. Paragraph 3 of the Official Action rejects claim 116 as being obvious

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based on the combination of Wilson, Saito, Shizukuishi and U.S. Patent No. 5,219,784 to Solheim. Paragraph 4 of the Official Action rejects claims 128 and 139 as being obvious based on the combination of Wilson, Saito and U.S. Patent No. 4,694,317 to Higashi et al. Paragraph 5 of the Official Action rejects claims 102-107, 109 and 140-144 as being obvious based on the combination of Wilson, Saito, Shizukuishi and U.S. Patent No. 4,766,471 to Ovshinsky et al. Paragraph 6 of the Official Action rejects claim 145 as being obvious based on the combination of Wilson, Saito, Shizukuishi, Ovshinsky and Higashi. Finally, paragraph 7 of the Official Action rejects claim 108 as being obvious based on the combination of Wilson, Saito, Shizukuishi, Ovshinsky and Solheim. The Applicants respectfully traverse the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2143-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. The independent claims of the present invention

specifically recite that a boundary of a CNO region is not aligned with an edge of a gate electrode. Wilson, Saito, Shizukuishi, Solheim, Higashi and Ovshinsky, either alone or in combination, do not teach or suggest that one boundary of a region, as claimed, located within a channel region and not aligned with edges of a gate electrode. In forming a rejection of the claims, the Official Action asserts that Wilson inherently teaches one boundary of a region located within a channel region and not aligned with edges of a gate electrode (pp. 3-4 and 12-14, Paper No. 53).

It appears that Fig. 3 of Wilson shows a region 42C having a boundary with a region 42B where the boundary is aligned with edges of a gate 44. In fact, the Official Action concedes that "figure 3 depicts a [boundary] aligned with edges of the gate electrode" (p. 14, Id.). The Official Action asserts that Wilson inherently teaches migration of oxygen or nitrogen such that the boundary would be located within the channel region. The Applicants respectfully traverse the finding of inherency regarding migration, because the Official Action has not provided a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the Wilson reference. Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). In accordance with MPEP § 2144.03, the Applicants respectfully traverse the above-referenced assertions and request that the Examiner cite references in support of their position. The Applicants respectfully submit that one boundary of a region, as claimed, located within a channel region and not aligned with edges of a gate electrode in combination with the other features of the independent claims is not conventional and would not have been known to one with ordinary skill in the art at the time of the invention.

In fact, the disclosure in Wilson teaches away from the assertion made in the Official Action in that it shows alignment of the boundary with the edges of the gate dielectric. Wilson explicitly states that the "implanted oxygen or nitrogen apparently precipitates at the grain boundaries and does not migrate significantly with the temperatures and times used to active the dopant" (col. 4, lines 56-59). The Official Action appears to interpret this statement to mean that some migration of oxygen and


nitrogen occurs. Applicant respectfully disagrees and respectfully submits that the plain language of this statement in fact means the opposite, specifically that oxygen and nitrogen do not migrate. Wilson states that the oxygen and nitrogen precipitate at the grain boundaries and do not migrate significantly. Thus, any theorized migration of oxygen and nitrogen is, at best, insignificant. Clearly, Wilson teaches away from any holding that regions 42C would inherently not be aligned with edges of the gate electrode as clearly illustrated in Figure 3 of Wilson.

Saito, Shizukuishi, Solheim, Higashi and Ovshinsky do not cure the deficiencies in Wilson. These references are relied upon to teach features unrelated to the deficiencies in Wilson.

Since Wilson, Saito, Shizukuishi, Solheim, Higashi and Ovshinsky do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) is in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



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